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September 7, 1990

Mr. Glen Eurick  
Environmental Affairs Coordinator  
Barrick Mercur Gold Mine  
P.O. Box 838  
Tooele, UT 84074

RE: Tailings and Sodium Cyanide  
Spill of August 20, 1990 and Request  
to Submit Information

Dear Mr. Eurick:

We have received your August 21 and 27, 1990 reports of the tailings pipeline failure and resultant spill of tailings and sodium cyanide. Our staff have also inspected the spill site on September 5, 1990. From this information and inspection we have gathered the following findings:

1. On August 20, 1990, 143,429 gallons of mill tailings and more than 60 pounds of sodium cyanide were released by the pipeline failure.
2. Four catch basins exist below the location of the pipeline rupture, three of which did not have capacity to contain the spill. The prior accumulation of sediments in the catch basins severely limited their capacity.
3. The uppermost catch basin is lined with concrete and an asphalt coating. The lower three catch basins are unlined.
4. Unlined conveyances exist between the catch basins.
5. The tailings pipeline has no secondary containment to collect spills and route them directly to a containment structure without contact with the ground surface.
6. As of September 5, 1990, 16 days after the initial spill, tailings had not been removed from the catch basins and disposed of properly.

7. On September 5, 1990 clear water was being released from the lowermost catch basin, reported by Barrick staff to have a free cyanide content of 0.28 mg/l.

Based on these findings we request that Barrick submit the following within 30 days of receipt of this letter:

1. Detailed Spill and Cleanup Report - disclosing the cause of the failure and all efforts made by Barrick to mitigate and recover the release of mine tailings and sodium cyanide. This report must include:
  - a. A plan or map of the tailings pipeline and stormwater control system.
  - b. Results and location of all water sampling to show concentration of the spill and any cyanide neutralization undertaken. Total dissolved solids and heavy metals (As, Ba, Cd, Cr, Cu, Pb, Hg, Se, Ag, Zn) concentration data should be provided, if available.
  - c. Results and location of soils testing for free and total cyanide and heavy metals to document the cleanup and removal of tailings from all unlined catch basins and unlined conveyances.
  - d. Timetable disclosing when cleanup efforts began and when they were completed. Any delay in the cleanup of tailings solids or neutralization of tailings water must be fully explained.
  - e. Description of the cause of the pipeline failure and efforts to repair it and date by which it was repaired.
2. Detailed Prevention Plan and Time Schedule - outlining Barrick's plans to prevent future releases to the environment. This plan must include the following items:
  - a. Plans and specifications to contain any future spillage from the tailings pipeline and prevent release to surface water courses. Such action may include additional catch basins or the addition of pumps to return the spill to your process circuit. System capacity must be designed to fully contain spills, storm runoff, and spring or other surface water that may enter the system.
  - b. Construction of impermeable liners in all catch basins that may receive any tailings spillage.
  - c. Construction of lined or piped conveyances between all catch basins that may receive tailings spillage, to prevent its contact with the ground.
  - d. Construction of secondary containment for the tailings pipeline to prevent spillage from contact with the ground.

- e. Operation and maintenance procedures for the catch basins to maintain maximum capacity and procedures to recover all spillage and return it to the process circuit or tailings pond.
- f. A timetable to complete all prevention actions including submittal of plans, and the beginning and conclusion of all construction. This schedule must not exceed September 30, 1991.

If you have any questions or comments, please call Loren Morton at 538-6146.

Sincerely,



Don A. Ostler, P.E., Director  
Bureau of Water Pollution Control

LBM:pb

cc: Neil Taylor, BERR  
Wayne Hedberg, DOGM  
Matt Trujillo, Tooele Co. Health Dept.

BMspill.LTR